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## TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10/591,374
Filing Date	August 31, 2006
First Named Inventor	Mark Franklin Davis
Art Unit	2615
Examiner Name	
Attorney Docket Number	DOL11505 US

### ENCLOSURES (Check all that apply)

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Fee Transmittal Form<br><input type="checkbox"/> Fee Attached<br><input type="checkbox"/> Amendment/Reply<br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/declaration(s)<br><input type="checkbox"/> Extension of Time Request<br><input type="checkbox"/> Express Abandonment Request<br><input checked="" type="checkbox"/> Information Disclosure Statement<br><br><input type="checkbox"/> Certified Copy of Priority Document(s)<br><input type="checkbox"/> Reply to Missing Parts/ Incomplete Application<br><input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)<br><input type="checkbox"/> Licensing-related Papers<br><input type="checkbox"/> Petition<br><input type="checkbox"/> Petition to Convert to a Provisional Application<br><input type="checkbox"/> Power of Attorney, Revocation<br><input type="checkbox"/> Change of Correspondence Address<br><input type="checkbox"/> Terminal Disclaimer<br><input type="checkbox"/> Request for Refund<br><input type="checkbox"/> CD, Number of CD(s) _____<br><input type="checkbox"/> Landscape Table on CD | <input type="checkbox"/> After Allowance Communication to TC<br><input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences<br><input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)<br><input type="checkbox"/> Proprietary Information<br><input type="checkbox"/> Status Letter<br><input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):<br>PTO-1449 (4 Sheets), copy of cited references (13), Certificate of Mailing and return receipt postcard |
|---|--|---|

Remarks

### SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	GALLAGHER & LATHROP		
Signature			
Printed name	Thomas A. Gallagher		
Date	May 31, 2007	Reg. No.	24,815

### CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature			
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This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Mark Franklin Davis

Serial No.: 10/591,374

Filing Date: August 31, 2006

Title: Multichannel Audio Coding

Conf. No. 8002

Examiner:

Art Unit: 2615

May 31, 2007  
San Francisco, California

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to the duty of disclosure set forth in 37 CFR § 1.56, Applicant(s) respectfully submit the following information disclosure statement.

The disclosed references are:

US 1,124,580, issued January 12, 1915, Edward H. Amet, filed July 3, 1911

US 1,850,130, issued March 22, 1932, D. K. Gannett, filed October 31, 1928

US 1,855,147, issued April 19, 1932, W. B. Jones, filed January 11, 1929

US 2,114,680, issued April 19, 1938, A. N. Goldsmith, filed December 24, 1934

US 2,819,342, issued January 7, 1958, F. K. Becker, filed December 30, 1954

US 2,860,541, issued November 18, 1958, W. R. Dresser, filed April 27, 1954

US 2,927,963, issued March 8, 1960, Jordan, et al., filed January 4, 1955

US 3,046,337, issued July 24, 1962, W. F. Hornyak, filed August 5, 1957

US 3,067,292, issued December 4, 1962, J. B. Minter 2<sup>nd</sup>, filed February 3, 1958.

US 3,846,719, issued November 5, 1974, Ray Milton Dolby, filed September 13, 1973

US 4,308,424, issued December 29, 1981, Robert G. Bice, Jr., filed April 14, 1980

US 4,359,605, issued November 16, 1982, Haramoto, et al., filed November 13, 1980

US 4,799,260, issued January 17, 1989, Mandell, et al., filed February 26, 1986

US 4,922,535, issued May 1, 1990, Ray M. Dolby, filed March 3, 1986

US 4,941,177, issued July 10, 1990, Mandell, et al., filed July 22, 1988

US 5,046,098, issued September 3, 1991, Mandell, et al., filed June 1, 1989

US 5,105,462, issued April 14, 1992, Lowe, et al, filed May 2, 1991

US 5,164,840, issued November 17, 1992, Kawamura, et al., filed August 28, 1989

US 5,172,415, issued December 15, 1992, James W. Fosgate, filed June 8, 1990

US 5,274,740, issued December 28, 1993, Davis, et al., filed June 21, 1991

US5,394,473, issued February 28, 1995, Grant A. Davidson, filed December 11, 1991

US 5,400,433, issued March 21, 1995, Davis, et al., filed December 28, 1993

US 5,428,687, issued June 27, 1995, Willcocks, et al., filed December 14, 1992

US 5,504,819, issued April 2, 1996, James W. Fosgate, filed July 18, 1994

US 5,583,963, issued December 10, 1996, Bruno Lozach, filed January 21, 1994.

US 5,621,855, issued April 15, 1997, Veldhuis, et al., filed October 19, 1994

US 5,625,696, issued April 29, 1997, James W. Fosgate, filed April 2, 1996

US 5,633,981, issued May 27, 1997, Mark F. Davis, filed June 7, 1995

US 5,644,640, issued July 1, 1997, James W. Fosgate, filed March 27, 1996

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US 5,909,664, issued June 1, 1999, Davis, et al., filed May 23, 1997

US 6,021,386, issued February 1, 2000, Davis, et al., filed March 9, 1999

US 6,807,528, issued October 19, 2004, Truman, et al., filed May 8, 2001

US Re 36,714, reissued May 23, 2000, Brandenburg, et al., reissue filed November 10, 1994

US 2003/0035553, published February 20, 2003, Baumgarte, et al., filed November 7, 2001

US 2004/0125960, published July 1, 2004, Fosgate, et al., filed August 30, 2001.

US 2004/0165730, published August 26, 2004, Brett Graham Crockett, filed February 26, 2002

WO 01/41504, published June 7, 2001, James W. Fosgate, filed November 28, 2000

WO 01/41505, published June 7, 2001, Gundry, et al., filed November 29, 2000

WO 02/063925, published August 15, 2001, Mark Franklin Davis, filed February 7, 2002

WO 02/097792, published December 5, 2002, Brett Graham Crockett, filed February 26, 2002

WO 02/19768, published March 7, 2002, Fosgate, et al., filed August 30, 2001

WO 04/019656, published March 4, 2004, Mark Franklin Davis, filed August 6, 2003

ATSC Standard A52/A: Digital Audio Compression Standard (AC-3), Revision A, Advanced Television Systems Committee, 20 August 2001.

Baumgarte, et al., "Why Binaural Cue Coding is Better Than Intensity Stereo Coding," 2002 May 1-13, Presented at the 112<sup>th</sup> AES Convention, Munich, Germany.

Baumgarte, et al., "Estimation of Auditory Spatial Cues for Binaural Cue Coding," 2002, IEEE, pp II-1801-II-1804.

Cheng, et al., "Introduction to Head-Related Transfer Functions (HRTF'S): Representations of HRTF'S in Time, Frequency, and Space," (invited tutorial). [coreyc@eecs.umich.edu](mailto:coreyc@eecs.umich.edu) ; <http://www.eecs.umich.edu/~coreyc>.

Faller, et al., "Binaural Cue Coding Applied to Stereo and Multi-Channel Audio Compression," 2002 May 10-13, presented at the 112<sup>th</sup> AES Convention, Munich, Germany.

Faller, et al., "Binaural Cue Coding: A Novel and Efficient Representation of Spatial Audio," 2002, IEEE, pp II-1841-II-1844.

Faller, et al., "Efficient Representation of Spatial Audio Using Perceptual Parametrization," 21-24 October 2001, IEEE Workshop on Applications of Signal Processing to Audio and Acoustics, pp 199-202.

Percival, W. S., "A Compressed-Bandwidth Stereophonic System for Radio Transmission," IEEE Paper No. 3152 E, November 1959.

Princen, et al., "Subband/Transform Coding Using Filter Bank Designs on Time Domain Aliasing Cancellation," Proc. Int. Conf. Acoust., Speech, and Signal Proc., May 1987, pp 2161-2164

Schroeder, et al., "Colorless Artificial Reverberation," 1961, IRE Transactions on Audio, Vol. AU-9, pp 209-214

Schroeder, M. R., "Natural Sounding Artificial Reverberation," July 1962, Journal AES, Vol. 10, No. 2, pp 219-223

Todd, et al., "AC-3: Flexible Perceptual Coding for Audio Transmission and Storage," 1994 February 26-March 1, presented at the 96<sup>th</sup> AES Convention as Preprint 3796.

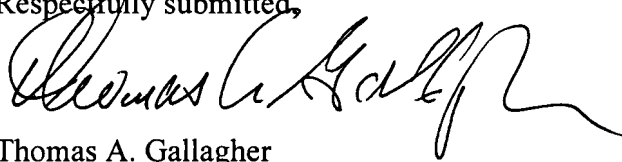
Vernon, Steve, "Design and Implementation of AC-3 Coders," reprinted by permission of IEEE, published in IEEE Tr. Consumer Electronics, Vol. 41, No. 3, August 1995.

The filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made (37 CFR §1.97(g)), admission that the information cited is, or is considered to be material to patentability, or that no other material information exists.

The filing of this Information Disclosure Statement shall not be construed as an admission against interest in any manner. Notice of January 9, 1992, 1135 O.G. 13-25, at 25.

Applicant wishes to make of record the documents listed on the accompanying form PTO-1449. Copies of the references are submitted herewith. It is respectfully requested that the Examiner initial the cited references on the form and that it be made of record in the application and that a copy of the initialed form be sent to applicants with the next communication from the Examiner.

Respectfully submitted,



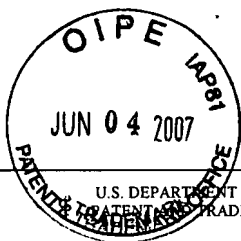
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Karen M. Strange

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U.S. DEPARTMENT OF COMMERCE  
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DOL11505 US

S.N.

10/591,374

## INFORMATION DISCLOSURE STATEMENT

APPLICANT

Mark Franklin Davis

FILING DATE

August 31, 2006

GROUP

2615

## U.S. PATENT DOCUMENTS

*Exam. Initial	Cite No.	DOCUMENT NUMBER Number - Kind Code	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	FILING DATE
		US-1,124,580	01/12/1915	Edward H. Amet	07/03/1911
		US-1,850,130	03/22/1932	D.K. Gannett	10/31/1928
		US-1,855,147	04/19/1932	W.B. Jones	01/11/1929
		US-2,114,680	04/19/1938	A.N. Goldsmith	12/24/1934
		US-2,819,342	01/07/1958	F.K. Becker	12/30/1954
		US-2,860,541	11/18/58	W.R. Dresser	04/27/1954
		US-2,927,963	03/08/1960	Jordan, et al.	01/04/1955
		US-3,046,337	07/24/1962	W.F. Hornyak	08/05/1957
		US-3,067,292	12/04/1962	J.B. Minter 2 <sup>nd</sup>	02/03/1958
		US-3,846,719	11/05/1974	Ray Milton Dolby	11/13/1973
		US-4,308,424	12/29/1981	Robert G. Bice, Jr.	04/14/1980
		US-4,359,605	11/16/1982	Haramoto, et al.	11/13/1980

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		WO 01/41504	06/07/2001	James W. Fosgate		
		WO 01/41505	06/07/2001	Gundry, et al.		
		WO 02/063925	08/15/2001	Mark Franklin Davis		
		WO 02/097792	12/05/2002	Brett Graham Crockett		
		WO 02/19768	03/07/2002	Fosgate, et al.		
		WO 04/019656	03/04/2004	Mark Franklin Davis		

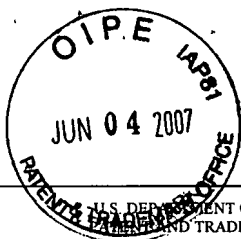
## NON-PATENT LITERATURE DOCUMENTS

*Exam. Initial	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	TRANSLATION YES NO	
		ATSC Standard A52/A: Digital Audio Compression Standard (AC-3), Revision A, Advanced Television Systems Committee, 20 August 2001.		
		Baumgarte, et al., "Why Binaural Cue Coding is Better Than Intensity Stereo Coding," 2002 May 1-13, Presented at the 112th AES Convention, Munich, Germany.		
		Baumgarte, et al., "Estimation of Auditory Spatial Cues for Binaural Cue Coding," 2002, IEEE, pp II-1801-II-1804.		
		Cheng, et al., "Introduction to Head-Related Transfer Functions (HRTF'S): Representations of HRTF'S in Time, Frequency, and Space," (invited tutorial). coreyc@eecs.umich.edu ; <a href="http://www.eecs.umich.edu/~coreyc">http://www.eecs.umich.edu/~coreyc</a> .		
		Faller, et al., "Binaural Cue Coding Applied to Stereo and Multi-Channel Audio Compression," 2002 May 10-13, presented at the 112th AES Convention, Munich, Germany.		

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		US-4,799,260	01/17/1989	Mandell, et al.	02/26/1986
		US-4,922,535	05/01/1990	Ray M. Dolby	03/03/1986
		US-4,941,177	07/10/1990	Mandell et al.	07/22/1988
		US-5,046,098	09/03/1991	Mandell et al.	06/01/1989
		US-5,105,462	04/14/1992	Lowe, et al.	05/02/1991
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		US-5,172,415	12/15/1992	James W. Fosgate	06/08/1990
		US-5,274,740	12/28/1993	Davis, et al.	06/21/1991
		US-5,394,473	02/28/1995	Grant A. Davidson	12/11/1991
		US-5,400,433	03/21/1995	Davis, et al.	12/28/1993
		US-5,428,687	06/27/1995	Willcocks, et al.	12/14/1992
		US-5,504,819	04/02/1996	James W. Fosgate	07/18/1994

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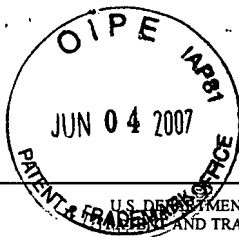
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		Faller, et al., "Efficient Representation of Spatial Audio Using Perceptual Parametrization," 21-24 October 2001, IEEE Workshop on Applications of Signal Processing to Audio and Acoustics, pp 199-202.		
		Percival, W. S., "A Compressed-Bandwidth Stereophonic System for Radio Transmission," IEEE Paper No. 3152 E, November 1959.		
		Princen, et al., "Subband/Transform Coding Using Filter Bank Designs on Time Domain Aliasing Cancellation," Proc. Int. Conf. Acoust., Speech, and Signal Proc., May 1987, pp 2161-2164		
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		US-5,621,855	04/15/1997	Veldhuis, et al.	10/19/1994
		US-5,625,696	04/29/1997	James W. Fosgate	04/02/1996
		US-5,633,981	05/27/1997	Mark F. Davis	06/07/1995
		US-5,644,640	07/01/1997	James W. Fosgate	03/27/1996
		US-5,727,119	03/10/1998	Davidson, et al.	03/27/1995
		US-5,909,664	06/01/1999	Davis, et al.	05/23/1997
		US-6,021,386	02/01/2000	Davis, et al.	03/09/1999
		US-6,807,528	10/19/2004	Truman, et al.	05/08/2001
		US-Re 36,714	05/23/2000	Brandenburg, et al.	11/10/1994
		US-2003/0035553	02/20/2003	Baumgarte, et al.	11/07/2001
		US-2004/0125960	07/01/2004	Fosgate, et al.	08/30/2001

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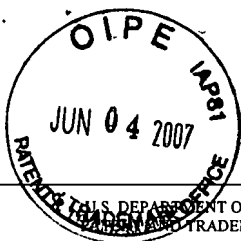
*Exam. Initial	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	TRANSLATION YES NO	
		Schroeder, M. R., "Natural Sounding Artificial Reverberation," July 1962, Journal AES, Vol. 10, No. 2, pp 219-223		
		Todd, et al., "AC-3: Flexible Perceptual Coding for Audio Transmission and Storage," 1994 February 26-March 1, presented at the 96th AES Convention as Preprint 3796.		
		Vernon, Steve, "Design and Implementation of AC-3 Coders," reprinted by permission of IEEE, published in IEEE Tr. Consumer Electronics, Vol. 41, No. 3, August 1995.		

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		US-2004/0165730	08/26/2004	Brett Graham Crockett	02/26/2002
		US-			
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